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ABSTRACT

This annual report covers the second year of the existence of the Council for Educational Technology. During this year, the Council has established a formal mechanism through which various sectors of education and training can make known their requirements for Council action, and designed and begun to implement a program of developmental activities to meet some of the more pressing of those needs. This report includes (1) a review of the year's activities, (2) the Council's purpose and intentions--a statement of guidelines for future policy, and (3) membership of the Council and its committees. Statements submitted by the Council to the Annan Committee on the Future of Broadcasting, and to the Warnock Committee of Inquiry into Special Education are appended. (Author/STS)

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ANNUAL REPORT

for the year October 1974 – September 1975

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COUNCIL FOR EDUCATIONAL TECHNOLOGY FOR THE UNITED KINGDOM

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I
REVIEW OF THE YEAR'S ACTIVITIES

This second year of the Council's existence has been the first in which its own policies and programme have predominated over work inherited from the former National Council. During the year it has:

– established a formal machinery through which the various sectors of education and training can make known to the Council their requirements for action on its part.

– designed and begun to implement a medium-term programme of innovative and developmental activities to contribute to the more pressing of these requirements.

In this work it has been guided by the policy decisions taken in its first year, and which it has seen no reason to modify significantly.

During the year the Council has welcomed the establishment of the Northern Ireland Committee for Educational Technology, and the moves towards the establishment of the Scottish Council for Educational Technology which is expected to meet for the first time late in October 1975. Both of these national-level organisations have formal links with the Council through co-option of a representative on to the Sector Requirements Committee.

The Sector Requirements Committee had in the previous year widely circulated a Consultative Document. In the light of the extensive and constructive response, the Committee recommended to Council that the original Hudson Working Party proposals for the establishment of Sector Requirements machinery be modified considerably. New proposals were made which aimed to provide the Council with a method of achieving the overall sector requirements objectives set out in the Hudson

Report, but in a manner which was as flexible as possible, and which was designed to achieve the most effective and productive collaboration with other organisations. The new proposals were approved by Council in November 1974. The Committee's subsequent work is described in Section I.3.

The Steering Committee for Innovation and Development met in October 1974 for a full-day seminar, at which it discussed general policy principles for the programme in order to establish a framework within which it could consider the detailed programme proposals coming forward from its three Working Parties. The discussion paper 'A Framework for the Programme' (a copy is appended as Annex E) was endorsed, and was subsequently accepted by the Council. A costed medium-term programme was then prepared and was accepted by the Executive Committee in September 1975. The steps taken during the year towards the implementation of the programme are described in Section I.4.

At this preliminary stage the Steering Committee for Innovation and Development was not able to use the formal Sector Requirements machinery. However, throughout the year it has borne in mind the importance attached by the Council at its first meeting to working through existing channels and collaborating with other organisations. Many consultations have been held with relevant organisations, which, wherever appropriate, have been asked to nominate members of advisory committees and steering groups. The Council is deeply grateful for the guidance that has been so readily forthcoming and that it has attempted to embody in all its planning.

I.1 COUNCIL

The full Council has met twice in the year; for a normal business meeting in February 1975, and for a two-day residential meeting at the University of York in July 1975. At this latter meeting the Council discussed its long-term aims in the light of the current pressures on education and training, and agreed the guidelines for future policy which form Section IV of this report.

The Council heard with deep regret of the death in December 1974 of Sir Fred Hutty, and expressed its sympathy to the Association of Education Committees on the loss of a wise and experienced member.

Dr J W Ashley-Smith (Headmasters Conference) resigned on his retirement and was replaced by Mr J A Boyes. The Council also accepted with reluctance the resignation of Mr F Jarvis after his appointment as General Secretary of the NUT. Mr Jarvis made a major contribution to the Council's thinking during its formative year and his direct advice will be missed. Mr D N McAvoy was welcomed in his place. The Council has also welcomed the following new members during the year: Mr T Taylor (AEC), Mr G M A Harrison and Mr E D G Robinson (AMA), Mr G C Marchant (EFVA), Mr R Watson (ICETT), and Mr D I Morgan (NUT).

I.2 EXECUTIVE COMMITTEE

The Executive Committee met six times during the year. Its membership for 1974–75 is given in Section II.

The Council has delegated to the Committee power to exercise control over the financial and day-to-day management of the Council's affairs.

Financial control

The Executive Committee commissioned Messrs Thornton Baker Associates to undertake a comprehensive review of the Council's financial organisation and procedures, and to make proposals to ensure that the Council's future requirements for accounting information, financial presentation and management control were adequately provided for. The review was undertaken in November 1974 and the proposals in the report were in general accepted and have been implemented. The main proposals were for the formation of a Budget Review Sub-Committee (which met for the first time in September 1975); for the delegation to SCID of responsibility for authorisation of expenditure below £3,000 on specific activities; for the introduction of a redesigned budget format; and for the introduction of regular management reports and revised procedures for authorising cheques and purchase orders.

Accommodation

Throughout the year, efforts were made to provide new accommodation for the Council's staff. Negotiations were completed in July 1975 for the purchase of a 34-year lease of a self-contained building at 3 Devonshire Street, London W 1. The Department of Education and Science agreed to provide extra funds for the purchase of the lease over a period of five years. Staff moved into the building in mid-August 1975. This is the first time for five years that the Council's staff have all been in the same building, a fact which it is hoped will have a beneficial effect on efficiency and morale.

Evidence to Committees of Enquiry

The Council submitted detailed evidence to Lord Annan's Committee on the Future of Broadcasting in May 1975. In preparing the evidence (drafted by

the Communications Study Group) the Council benefited from consultation with numerous other educational bodies, culminating in a consultative conference attended by delegates from more than 30 organisations. A copy of the evidence is appended as Appendix A.

Lord Justice Whitford's Committee on Copyright, which had received written evidence from the Council in July 1974, invited the Council to give supplementary oral evidence in May 1975.

The Council also submitted written evidence to the Warnock Committee on Special Education in July 1975. A copy of the evidence is appended as Appendix B.

Analogues of the Open University

The Council decided in November 1974 that it would take a positive role in the discussions leading to the development of distant teaching systems analogous to those used by the Open University for below degree-level courses. Staff have been collecting information and are preparing proposals for a major activity by the Council in the near future. An article on 'The Open School' by Stuart Maclure was published in the May 1975 issue of the *British Journal of Educational Technology*, and an article on 'Analogues of the Open University' by the Director will appear in the October 1975 issue of the *Journal*.

A national cataloguing system for audio-visual materials

The Executive Committee received from the Steering Committee for Innovation and Development a report of a feasibility study carried out at the request of the British Library Board (see Section I.4 Working Party C). In forwarding the report, the Committee supported the recommendations that the British Library should take on overall responsibility for providing a national cataloguing and information

service for audio-visual materials in accordance with its statutory powers, and that it should set up a development project to test the technical and organisational aspects of the system.

It is believed that the British Library are aware of the desirability of improving the provision of services for audio-visual materials to the level and quality that exists for print materials, and that further cost data for the recommendations are being assembled.

Budget Review Sub-Committee

The Budget Review Sub-Committee met for the first time in September 1975 to consider in detail the budget proposals for the year 1976–77. Subsequent to their discussion, a budget summary was put to the Executive Committee for approval and transmission to the Department of Education and Science.

I.3 SECTOR REQUIREMENTS COMMITTEE

The Sector Requirements Committee met five times during the year. The current membership is given in Section III.

Establishment of a Register of Participating Bodies

A Statement and Invitation to apply for Registration as a Participating Body was circulated in December 1974 to over 100 organisations which had expressed interest in the Council's work. (A copy of the Statement and Invitation is appended as Annex D.) The new proposals were well received and to date 51 organisations have been accepted by the Executive Committee for inclusion in the Register. Five organisations have had their applications refused because they do not meet specific criteria. A first Register of Participating Bodies will be circulated in autumn 1975.

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Programme of investigations

Topics for investigation through the Sector Requirements machinery can arise in two ways. The Council's own development programme will point up problems, or the Participating Bodies themselves can formulate their own needs and bring them to the Council for discussion. Although a start has been made towards developing a programme of investigations through the first of these channels Sector Requirements Committee has decided that, in the light of the Council's discussions in York in July 1975, the purpose and objectives of the Committee's work should be reappraised. The current programme has, therefore, been halted, with the exception of the support staff investigation mentioned below, whilst the reappraisal is carried out.

Educational technology in training for employment

An exploratory meeting of Participating Bodies in the Training for Employment sector was held in January 1975. The meeting discussed the problems of developing the use of educational technology within training for employment. Eighteen organisations were represented at the meeting, which decided that improvements were needed in the information services in this field. The British Association for Commercial and Industrial Education was asked to discuss with CET and the Training Services Agency ways of tackling this problem. A proposal from BACIE for an investigation is currently being considered jointly by TSA and the Council.

Needs of all sectors for staff to support the use of educational technology

A major investigation was launched in June 1975 into the needs of all sectors of education and training for non-teaching staff to support the use of educational technology. This topic was given priority from five brought forward by staff from the current Council development programme. Preliminary information is being sought by corres-

pondence from the Participating Bodies. This information will be collated and analysed by CET staff, before being discussed at a series of meetings with Participating Bodies.

I.4 STEERING COMMITTEE FOR INNOVATION AND DEVELOPMENT

The Steering Committee for Innovation and Development met three times during the year. The membership of the Committee is given in Section III. The three Working Parties of SCID are responsible for detailed preparation of development proposals. Working Parties A and B met three times during the year, and Working Party C met four times. Membership of Working Parties, which include a number of members co-opted for their specialist knowledge, is also given in Section III.

Acitivities in the development programme are listed according to the Working Party responsible.

Working Party A: *Educational Policy-Making, Administration and Management*

Seminars for Senior Policy-makers

The first of a series of seminars for senior policy-makers was successfully held in Bristol in May 1975. It was attended by 14 Chief Education Officers and Chairmen of Education Committees from the south-west of England. The discussion concentrated on ways in which educational technology can contribute to the effectiveness of education during a time of financial stringency. A further two regionally-based meetings are being actively planned.

Headteacher as Manager

A Working Group has been established to generate activities aimed at ensuring that the headteacher, in his management role, is aware of the potential contribution of educational technology and has the

information and skills needed for effective decision-making. The Group met for the first time in June 1975.

Case studies A detailed case study has been in preparation over the past three years of the development of Dundee College of Education, dealing particularly with the large-scale provision and organisation of learning resources. The materials should be completed next year. This is one of a series of case studies planned to cover major applications of educational technology.

Cost analysis Preliminary work is being carried out by the staff prior to the establishment of a special study group on cost analysis in the autumn of 1975. The group will aim to support decision-making about large-scale learning system by providing financial analyses of relevant current schemes.

Working Party B: *Training, Advice and Consultancy*

Colleges of Education The work of the College of Education Learning Programme Project, started by NCET in 1972, continues to form the major part of the Council's activity in the training field. The project was the subject of an independent evaluation carried out over a period of six months by Lehman Ball, a retired School Broadcasting Council education officer. His report commented favourably on many of the project's activities despite the limited funds available, and has been noted and acted upon by the Steering Committee and the project team.

The project's activities have continued throughout the year. The Information Services Group has prepared a second edition of its catalogue of audio-visual and other materials produced by Colleges and Departments of Education, and has launched a

newsletter. It also carried out a survey of provision of learning resources in teacher education and published the results in March 1975. The Consultancy Group has again organised, in collaboration with DES, a special training course for expert consultants in educational technology in the college field, and has arranged a series of regional conferences for College Liaison Officers. The Workshop Conferences, at which on-site training in specific aspects of educational technology is provided at the request of colleges, have continued to be successful. Eight have been held in the year under review.

New 'Materials Development Groups' have been established to encourage the co-operative development of teaching materials between colleges. Groups are currently working on teaching of Reading, Social Biology, Curriculum English, and Physical Education.

The project is extending its contacts into the polytechnic field. It has paid growing attention to in-service training, has made contact with the Liverpool Teacher-Tutor Scheme, and is increasing its efforts to contact Teachers' Centres with regard to in-service training.

At the request of a number of teacher training institutions the Council organised in February 1975 a residential seminar on Learning Resources in Teacher Education. The participants, most of whom were professionally responsible for the provision of learning resource services, came from a wide range of institutions throughout the U K. Four members of HM Inspectorate attended throughout. A strong need emerged for general guidelines on standards of resource provision, and the Council was asked to set up a working party (see under Working Party C). The seminar aroused considerable interest and a

report, written by a college principal, was therefore circulated to all institutions.

Early Childhood Education

The Primary Extension Programme, funded by the Bernard van Leer Foundation, to develop new approaches to the education of disadvantaged young children, moved into a new phase with the opening of a two-year dissemination programme. Twelve local education authorities have established at shared expense PEP Centres with teacher-leaders to promote and give training in techniques which had been developed in the first phase of the Programme. Present activities aim to extend the number of authorities using this approach. A report of the first phase of the Programme, 'Children in the Picture', was published in June 1975. A selection of the materials produced in the first phase was prepared for publication as 'patterns' which could be used by those preparing courses, both pre-service and in-service, for teachers concerned with the early years of education.

Long Courses in Educational Technology

In November 1974 the Council brought together the directors of major courses in educational technology provided in the various parts of the U K. The participants welcomed this first opportunity to exchange experiences, and a second meeting was therefore held in April 1975, leading in turn to a request for a residential seminar which is being arranged for February 1976 At the suggestion of the course directors, the Council has prepared and published (July 1975) the first national list of major courses leading to qualifications in educational technology. The demand for copies has been unexpectedly heavy, and it is intended that the publication will be revised on an annual basis.

Librarianship Education

The Working Party on Librarianship Education has a particular concern to promote the consideration of the special problems of the librarianship of non-book materials in the initial and in-service training of librarians. It has compiled a list of specialist lecturers in this field, is promoting co-operation in the preparation of appropriate teaching materials, and has planned a series of seminars (starting autumn 1975) to increase awareness of the problems.

Working Party C: ***Resource Provision and Resource Management***

Standards and Specifications

The User Specifications (USPECs), produced under the guidance of the Council's Working Party on Standards and Specifications (membership of which is given in Section III) with the technical assistance of the Experimental Development Unit of NCAVAE, are increasingly appreciated throughout education and training, as providing a useful and practical indication of the needs of the users of audio-visual equipment. During the year three USPECs were produced: 8a and 8b, Plugs, Connectors and Matching; 6, Combined Filmstrip/Slide Projectors. USPEC 14, Microform Readers is in the final stages of production. During the year, some 20,000 copies of USPECs have been supplied on request to education and training institutions. A mechanism for the evaluation of available equipment against USPECs is under consideration. Members of the Working Party and its panels continue to play an active part in the work of the appropriate committees of the British Standards Institution and the International Electrotechnical Commission.

A Study Group on Standardisation, set up in parallel with the Working Party to provide a forum for discussion of the relationship between the Council and manufacturers of equipment and their

involvement in the standards and specifications field, met for the second time in June 1975.

Copyright

The Council continues to place emphasis on its work in the field of copying and copyright. With the submission of formal evidence to the Whitford Committee referred to last year, the first phase of the Council's work in this field came to an end. The opportunity was taken to re-structure the Working Group on Copyright to provide the expertise needed for future developments. The new members of the Group are listed in Section III.

During the year, oral evidence was given to the Whitford Committee; the Schools Broadcasting Council, partly as a result of encouragement by the Council, announced an extension of arrangements for off-air recording of educational broadcasts; and the Copyright Officer began preparation of a practical guide to copyright clearance for educational users.

Following the initiative of the former National Council, by the end of the year the Mechanical Copyright Protection Society had issued to LEAs and individual institutions over 100 blanket licences for the copying of gramophone records. Considerable progress has been made on an agreement for the blanket licensing of the copying of sheet music, and discussions have continued with the Publishers Association on a blanket licence for the multiple copying of print materials.

The Council's Copyright Officer has been frequently called upon for specific advice by a wide range of institutions, and for specialist lectures.

Video Copying

Four institutions of Higher Education have agreed to co-operate with the Council by providing a pilot service for education for the copying of video-tapes. The full scheme is expected to be announced shortly.

Continuing Mathematics Programme

Production and validation of further modules of self-instructional materials was carried out by the Continuing Mathematics Programme project team. The Programme, which is jointly funded by Schools Council, DES, CET and a number of industrial concerns, is coming to the end of its production phase. Planning is proceeding for a dissemination phase.

Cataloguing of Educationally-Produced Materials

The catalogue of audio-visual materials produced in institutions of higher education (HELPIS) has now become firmly established, three editions having been produced by the Council. In accordance with the Hudson Working Party recommendations, it was decided that this catalogue had passed the experimental stage and become a continuing service. Arrangements have therefore been completed for its publication to be taken over by the British Universities Film Council, who, with initial assistance from CET, are engaged in preparing the fourth edition. (See also Colleges of Education Learning Programmes Project under Working Party B.)

Resource Provision in Teacher Training

As a result of a seminar held in February 1975 (see Colleges of Education Learning Programmes Project under Working Party B), a widely-representative Working Party has been established to provide guidelines for resource provision in teacher training. It will meet for the first time in October 1975.

Communications Study Group

The main work of the Communications Study Group (membership listed in Section III) has been the preparation of the Council's evidence to the Annan Committee on the Future of Broadcasting (see under Executive Committee). The Group is now planning its future programme.

The Design of Learning Spaces

The report of a one-year study carried out at the Institute of Advanced Architectural Studies, University of York, was published in November 1974. Supplementary audio-visual material produced during the study was published in June 1975. A seminar of LEA audio-visual and buildings officers and architects to discuss the report was jointly held with the National Committee for Audio-Visual Aids in Education. Resulting from this, a Working Party on the Adaptation of Learning Spaces is to be established jointly with NCAVAE. It will aim to show, by reference to existing examples, how schools and colleges can be modified to make effective use of educational technology, even in a period of financial stringency.

A national cataloguing system for audio-visual materials

As an outcome of the work already done by the National Council, the British Library Board invited the Council to join them in carrying out a major feasibility study of a national cataloguing and information service for audio-visual materials. This was undertaken between October 1974 and May 1975, with the guidance of a widely representative advisory committee, and involved consultations with nearly 50 organisations. The report was endorsed by the Steering Committee for Innovation and Development on 12 May 1975 (see also under Executive Committee).

Research The Steering Committee for Innovation and Development decided to take direct responsibility for encouraging a coordinated national programme of research in educational technology and the effective dissemination of research findings to all concerned. An investigatory meeting was held in November 1974 of representatives of the various research organisations, followed in June 1975 by a meeting of research workers from the various sectors of education and training. On their advice the Council is commissioning a state-of-the-art survey of recent research, as a basis for future plans. Close contact is being maintained with the Educational Research Board of SSRC.

I.5 PUBLICATIONS AND INFORMATION ADVISORY COMMITTEE

The Publications Advisory Committee met three times during the year. In March 1975 the Executive Committee asked the Committee to add to its duties oversight of the Council's information activities. To enable it to do this, membership of the Committee was increased by two, one Council member and one co-opted expert. The membership of the new Committee, which meets for the first time in October 1975, is given in Section III.

Publication Programme The Council has published 10 new books during the year, including the first title in a new series of 'Guidelines' which is proving very successful. In order of publication, the titles are as follows:

Directory of Information Sources and Advisory Services in Educational Technology
edited by Olivia Fairfax
ISBN 0 902204 46 7 £2.20

The Design of Learning Spaces
by Peter Smith
ISBN 0 902204 47 5 £3.75

The Second Select Bibliography of Educational Technology
compiled by Sylvia Staff and Michael Eraut
ISBN 0 902204 50 5 £1.80

Guidelines 1, Learning Resources? An Argument for Schools
by W J K Davies
ISBN 0 902204 49 1 £1.50

Questions to Ask when Designing Primary and Secondary Schools for the Use of Educational Technology
by Peter Smith
ISBN 0 902204 52 1 75p

Children in the Picture
by Frank Blackwell
ISBN 0 902204 53 X £1.00

Occasional Paper No. 7, Primary School Innovation and Technology
by A Robinson and J H Embling
ISBN 0 902204 51 3 £1.10

Two Years On
by Richard Hooper
ISBN 0 902204 55 6 £1.25

Computer Assisted Learning in the United Kingdom. Some Case Studies
edited by Richard Hooper and Ingrid Toye
ISBN 0 902204 54 8 £3.75

Planning a Course of Continuing Education for General Practice – A Systematic Approach
by Roger Cole and Charles Engel
ISBN 0 902204 59 9 £2.00

In addition, the Council has produced five pamphlets for free distribution:

Evidence to the Committee to consider the Law on Copyright and Design

Educational Technology and the Provision of Learning Resources in Teacher Education: A Survey

Learning Resources in Teacher Education: Report of the Windermere Seminar (limited circulation)

Communications in Education (Evidence to the Committee of Inquiry into the future of Broadcasting)

Qualifications in Educational Technology

The Council has also increased its output of audio-visual materials, adding seven titles in a variety of media to its list.

Layout for Learning £15.00
(tape/slide set, discussion leader's notes)

The Design of Lecture Theatres £15.00
(tape/slide set, discussion leader's notes)

Media and Methods Case Studies

No 1 Purley Oaks: Resources in an Infant's School £65.00
(16mm colour film, taped discussion, users' manual and handout material)

No 2 The Audio Visual Club £65.00
(16mm colour film, taped discussion and users' manual)

No 3 Link-Up for Learning £45.00
(16mm colour film, taped discussion, users' manual and handout material)

Evaluation Case Studies

No 1 Record Keeping £15.00
(four overhead projector transparencies, taped discussion, users' manual, handout materials)

No 2 The Staff Meeting £6.00
(2 tapes, users' manual)

The *British Journal of Educational Technology*, now into the second year of editorship by C J Duncan of the University of Newcastle-upon-Tyne, maintains its standard and standing as a major international journal in this field. Almost half its circulation (now 1,500 copies each term) goes to overseas subscribers.

In addition to the *Journal*, the Council has, at 30 September 1975, 26 publications for sale, five free pamphlets available on request, and 14 items of audio-visual material available for sale or hire. Distribution of books is through Councils and Education Press Ltd, and of audio-visual materials

through the Educational Foundation for Visual Aids and the Scottish Film Council.

Information Activities

The bulk of the external information effort is concerned with ensuring that the work of the Council is known to those in education and training who are most directly interested in it. The following activities are on-going under this heading.

Distribution of leaflets. A series of information leaflets has been produced, partly for distribution at exhibitions, but also for direct distribution to interested people by post. The Council has its own (limited) mailing list of people and institutions who have asked to be kept regularly informed about the Council's work. Special mailings (through commercially available lists) are also made from time to time to particular groups; for example, teachers' centre wardens, librarians, colleges of education. Some 25,000 leaflets have been distributed in this manner during the year under review.

Participation in exhibitions. The Council's major exhibition presence to date has been at InterNAVEX, but this year it was decided not to take a stand at the commercial exhibition. Instead, a small exhibit was arranged in conjunction with the InterNAVEX Conference at Whitelands College, Putney. Small exhibitions have also been mounted at the APLET and NECCTA Conferences, and some regional conferences and exhibitions.

Participation in conferences. Efforts are made to ensure that Council members and staff are invited to participate in appropriate conferences, or to chair sessions. Examples this year are InterNAVEX, NECCTA, APLET, Council of Subject Teaching Associations, and Access to Continuing Education. The Council made a special grant to

NCAVAE to assist them in pre-printing of papers for their conference in connection with InterNAVEX.

Visitors and Inquiries. The Council receives a wide variety of visitors, from this country and overseas (nearly 80 in the past year), seeking information about CET and its programme, and also about educational technology in general. A large number of inquiries are dealt with by post.

I.6 INTERNATIONAL ACTIVITIES

It is part of the Council's terms of reference to exchange information and experience with relevant national bodies in other countries and to participate when necessary in the work of international organisations.

Many visitors were received from overseas, in most cases on reference by the British Council. This has enabled the staff not only to give apparently valuable adivce on specialised issues but also to benefit from the experience of other countries.

In September 1974 Professor Black represented the Council at the Round Table Conference on Educational Technology in European Higher Education organised by the International Film and Television Council at Grenoble. He was called upon to take the Chair at short notice and much of the achievement of the meeting was due to his efforts.

The staff have continued to participate in the work of UNESCO (International Film and Television Council) and of the Council of Europe (Steering Group on Educational Technology and Committee for Educational Documentation and Information).

The latter committee is planning a European Documentation and Information System for Education (EUDISED), whose practical implementation is under consideration by the European Community. Staff have contributed to pilot work by making a feasibility study of a European Information System for Non-Book Materials Suitable for Educational Use, and by compiling a Directory of National Information Agencies. As a contribution to the work of the Council of Europe, CET has circulated the Directory, which lists 90 agencies in 20 countries, to the responding agencies and to national education ministries. Staff are now organising the preparation of a pilot catalogue of audio-visual teaching materials reported by agencies in France, the Federal Republic of Germany, the Netherlands, Sweden and the United Kingdom. The catalogue will be computer-produced by the British Library.

II
THE COUNCIL'S PURPOSE AND INTENTIONS: A STATEMENT OF GUIDELINES FOR FUTURE POLICY

In July 1975 the Council held a two-day residential meeting at the University of York. The main part of this meeting was devoted to considering the Council's longer-term objectives. Papers had been prepared in advance setting out the problems facing education and training, as they appear to policy-makers, administrators, trainers and teachers in different sectors, together with a summary of the Council's current programme of work.

The Council broke into two study groups, reassembling from time to time to exchange views, and spending a final plenary session agreeing on general guidelines for the next few years. It would give a wholly inaccurate impression of the range of the discussion to record only the general guidelines, on which the Council were unanimously agreed, without also setting out the many points of view expressed in the study group discussions, which were reported in the sessions of the full Council but not necessarily discussed and endorsed.

Thus the following statement should be read together with the summary of points made in discussion; the discussion points are not the policy of the Council but they reflect the consensus of Council members and will influence, through the working of the Council's committees, the way in which the policy is implemented.

Statement: The Council's Purpose and Intentions

In the country's present economic situation, the resources for education and training will inevitably be severely constrained. At the same time, the demands on the service are likely to increase, particularly in respect of further education and training for employment. It is therefore particularly

important that the best possible use should be made of the human and material resources that are available. Educational technology is concerned with just this issue of the effective use of resources and is, therefore, particularly significant at the present time. In the Council's view, the difficult economic circumstances emphasise the need for wide understanding of what educational technology offers and for vigorous application of its methods wherever they can contribute to more effective teaching and learning and more efficient use of resources of all kinds.

The Council is essentially a development agency; its purpose is to bring about beneficial changes in the way in which education and training takes place. It functions are

a to set out desirable ways forward for education and training that educational technology makes possible or easier;

b to show what can be done, how it can be done, what it costs and how effective it is;

c to help those at all levels engaged in innovation.

Over the next few years the Council intends to concentrate its main effort on the following activities:

1 Securing an understanding by policy-makers and decision-takers of the value of the planned application of educational technology. (This includes the current activity on seminars for policy-makers and on management training for head-teachers.)

2 Ensuring the availability of training in the theory and practice of educational technology to both new and serving teachers and trainers at all levels (including the current activity on the application of educational technology in teacher education as part of a major programme to support existing training activities).

3 Developing and promoting effective practice in the organisation and management of learning resources (including giving guidance on the setting-up and operation of resource services and on the provision of resource material).

These main development areas will be supported by programmes aimed at advancing the theory and practice of educational technology and extending the work on removing obstacles to innovation (*eg* the current work on copyright, copying, user specification of equipment, and the development of information systems for non-book materials).

The Council has already made it clear that it will, wherever possible, work in collaboration with other concerned organisations; the present situation calls for a concerted effort to use the capability of educational technology to overcome the difficulties facing the education and training services and to enable them to offer enhanced services despite the limitations of finance.

Discussion Points raised in the Study Groups

Education and training is facing a period of contraction and cuts in resources. At the same time, the pattern of need is changing; the 'bulge' in the school population has moved from primary to secondary, and there is growth of demand in the 16 plus and adult areas. Training for employment, including retraining and up-dating, is also likely to show increased demand.

Education and training is a response to the needs of society; educational technology can contribute to the way in which education and training responds to these needs. The Council has to identify how it,

as a central national organisation, can help to bring about that educational technology contribution.

Hence, the Council needs to think ahead for change; to be alive to the social, political and economic pressures on education and training; to foresee trends, and to be active in pointing to the desirable developments which educational technology makes possible or facilitates, rather than waiting for an educational development to emerge and then seeking to identify the part educational technology can play in it.

The Council should be challenging: it should challenge teachers and administrators by questioning received assumptions and showing what is possible if new methods are applied in pursuit of clearly expressed aims. Hence, the Council should disseminate information on good practice, supported by costings and evaluations. Moreover, the Council should not be content to offer alternatives and point to possibilities: it should give positive guidance on which developments are best adapted to achieve particular aims, should define standards and set out appropriate levels of provision. It should also take a positive role in advising Government, not only in the fields where Committees of Enquiry and similar bodies have been set up, but also on issues which the Council sees as significant but where Government is not seeking advice. Furthermore, though the Council is a UK body, it has a responsibility to build links with relevant bodies overseas, and particularly with the institutions of the European Community.

The training of teachers and trainers is crucial to the spread of educational technology. It is important to define educational technology clearly and unequivocally; to destroy the misconception that it

is 'all about machines'; to inject into the thinking of all those training and being trained the concept of a systematic approach to teaching and learning and a broad acceptance of all new approaches, whether or not they involve the use of new mechanical technologies. The Primary Extension Programme has shown how much can be done with very cheap, low-level technology, coupled with new ideas and approaches. The training methods, both pre-service and in-service, should themselves be based on educational technology, so that the student experiences new methods in his own training.

There, too, is an important field for applying new teaching methods coupled with new student assessment techniques. In in-service training particularly there are opportunities for the wider application of self-study methods, both as a means of making training available that suits the needs of the learners and as a way of giving the learner experience of independent study.

The Council has a particularly important part to play in the area of resource provision and utilisation. The need is to set out clearly, for the guidance of those who have to set up such facilities, standards and models in relation to the design, adaptation and use of buildings, the functions of resource facilities in different institutions, and the type of regional and area resource facilities which are desirable. Arrangements for creating resources need to be considered; there is a very strong case for involving teachers and trainers in the planning activity, which should closely relate to curriculum development, but for cost-effective development of materials there should be adequate ancillary staffing, and on this also the Council should give clear guidance.

All changes depend very much on those who have the power of decision. The Council can best help decision-takers and policy-makers by providing them with information on what has been done, what can be done, and on the costs involved, by offering them opportunities to discuss the managerial implications of new approaches, and by providing specific training for those (such as head-teachers) who are brought face to face with novel problems of management as a result of the adoption of new teaching methods.

Alongside these major areas of activity, the Council needs to take steps to advance the theoretical understanding of educational technology, to help practitioners to keep abreast of research, and to continue its current activity aimed at removing barriers to innovation. As the Council's programme develops, its programme of publicity and information dissemination will need to expand and make more of an impact.

III

MEMBERSHIP OF COUNCIL, COMMITTEES, STEERING COMMITTEES AND WORKING GROUPS

COUNCIL

Alphabetical List of Members by Organisation

Mr F J Hill *(Chairman)*

Association of County Councils (ACC)

Mr F Hallworth
Mr J G Owen

Association of Education Committees (AEC)

Lord Alexander
Mr T Taylor

Association of Metropolitan Authorities (AMA)

Mr G M A Harrison
Mr E D G Robinson

Association of Principals of Technical Institutions Institutions (APTI)

Mr W A G Easton

Association of Teachers in Colleges and Departments of Education (ATCDE)

Dr H J Peake

Association of Teachers in Technical Institutions (ATTI)

Mr J W Mansell
Mr D J Harris

Association of University Teachers (AUT)

Professor L R B Elton

British Broadcasting Corporation (BBC)

Mr D Grattan

Committee of Directors of Polytechnics (CDP)

Mr D P Bethel

Committee of Vice Chancellors and Principals (CVCP)

Professor J Black
Professor J B Jepson
Dr H Kay
Mr R C MacLean

Educational Foundation for Visual Aids (EFVA)

Mr G C Marchant

Headmasters Conference

Mr J A Boyes

Incorporated Association of Assistant Masters (AMA)

Mr A W S Hutchings

Incorporated Association of Assistant Mistresses (AAM)

Miss S D Wood

Independent Broadcasting Authority (IBA)

Mr B Groombridge

Industrial Council for Educational and Training Technology (ICETT)

Mr H A Randall
Mr R Watson

Industrial Training

Mr P Haxby
Mr G J Morris
Mr P Rosenfeld

Inner London Education Authority (ILEA)

Dr E W H Briault

Jointly for the Incorporated Association of Headmasters and Incorporated Association of Headmistresses

Mr W E Egner

National Association of Head Teachers (NAHT)

Mr A Pendlebury-Green

National Association of Schoolmasters (NAS)

Mr M Calvert
Mr G McDonald

National Union of Teachers (NUT)

Mr A Bassett
Mr C B Johnson
Mr D McAvoy
Mr D I Morgan
Mr C L West

Nominated by the Secretaries of State

Mr J H Embling
Dr B J Enright
Sir Brynmor Jones
Mr J S Meldrum
Mrs E Rowlands
Miss A Shrubsole
Miss G P Watts

Open University (OU)

Professor D G Hawkridge

Schools and Further Education, Northern Ireland

Dr W F K Kerr

Schools and Further Education, Scotland

Dr D J Docherty
Mr N MacNicol
Mr A G Millar
Mr G Paton

Scottish Film Council (SFC)

Mr R B Macluskie

Welsh Joint Education Committee (WJEC)

Mr J H Davies

Ex-officio

Mr M J Gifford

Alphabetical List of Assessors (by Department)

Civil Service Department

Mrs M B Sloman*

Department of Education and Science (DES)

Mr B L Baish
Mr M Edmundson HMI
Mr B C Peatey

Department of Education for Northern Ireland

Mr R A Macdonald**

Department of Employment (DE)

Mr J Wiltshire

*Replaced by Mr G T Morgan in January 1975
**Replaced by Mr N Morrison in July 1975

Department of Health and Social Security (DHSS)
Mr T T Payne

Department of Industry
Mr G H Gillings*

Ministry of Defence (MoD)
Air Vice Marshal A D Button

Schools Council
Dr T A Burdett

Scottish Education Department (SED)
Mr J G Morris HMCI

University Grants Committee (UGC)
Mrs E W Cahan

Welsh Education Office
Mr Glyn Evans HMI

*Replaced by Mr B R Taylor in September 1975

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EXECUTIVE COMMITTEE

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Lord Alexander	Mr T Taylor *(alternate)*
Mr D P Bethel	Mr D Mortimer *(observer)*
Professor J Black	Professor J B Jepson *(alt.)*
Dr E W H Briault	Mr L F Ryder *(observer)*
Mr M Calvert	
M J H Davies	
Mr W E Egner	Mr A W S Hutchings *(alt.)*
Mr J H Embling	
Mr B Groombridge	Mr D Grattan *(alternate)*
Mr F Hallworth	Mr J G Owen *(alternate)*
Mr P Haxby	Mr G J Morris *(alternate)*
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Dr H J Peake	
Mr A Pendlebury-Green	
Mr H A Randall	Mr R Watson *(alternate)*
Mr E D G Robinson	

Mr M J Gifford *(co-opted as Chairman of Sector Requirements Committee)*

SECTOR REQUIREMENTS COMMITTEE

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*Mr D P Bethel	*Mr R B Macluskie
Mr M W Carter	*Mr A G Millar
*Mr B Groombridge	*Mr G Paton
*Mr F Hallworth	*Mr H A Randall
*Mr D J Harris	*Mr P Rosenfeld
*Mr A W S Hutchings	Mr C C Roxburgh
*Mr D McAvoy	*Miss A Shrubsole
*Mr G McDonald	Mr G M Wilkinson

†Replaced by Mr D McAvoy in July 1975
*Member of Council

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*Professor J B Jepson
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*Mr J G Owen
Mr L E Page
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*Mr R Watson
Mr B R Webster
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Mrs M Godfrey
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WORKING PARTY ON EDUCATIONAL POLICY-MAKING, ADMINISTRATION AND MANAGEMENT ('A')

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*Professor D G Hawkridge
*Mr J G Owen
*Dr H J Peake
Mr B R Webster

Co-opted Members:
*Mr J H Davies
Mr J L MacKenzie
*Mr J S Meldrum
Commander R T King
*Mr A Pendlebury-Green

*Member of Council

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Working Group on the Management of Educational Technology by Headteachers

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*Mr J A Boyes
Mr J L Cawthorn
Mr D L Davies
Mr J E B Dawson, HMI
*Mr W E Egner
Miss A Ellis
Mr D S Kerr
*Mr A G Millar
Mr J O Murphey
Mrs K Phillips
Mr R A H Richards
Mr K Reid

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*Mr N MacNicol
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Mr E M Broome
Mr W Caldwell
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Mr K G E Harris
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Mr P R Lewis
Mr L E Page
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Mr E H Bland
Miss R F Carr
Mr J Coffey
Mr K G Collier
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Mr M Elliot
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Mr L A Gilbert
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WORKING PARTY ON RESOURCE PROVISION AND MANAGEMENT ('C')

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*Dr B J Enright
Mr J Foster
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*Mr R Watson

*Member of Council

Working Party on Standards and Specifications

Mr B R Webster *(Chairman)*
Mr A H Crocker
*Mr J H Embling
Dr S Fletcher
Mr R H M Fothergill
Mr C V Hancock
Dr R McG Harden
Mr G G Howlett
Mr R T B Lamb
Squadron Leader R Lloyd
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Mr B W Richardson
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Mr C A Pryer
*Mr H A Randall
Mr K S Spencer
Mr D E Street
Mr P F Went
Mr B R Webster
Major R C Woods

Working Group on Copyright

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Mr H J Edwards
*Dr B J Enright
Mr I Gilman
*Mr D J Harris
Mr D J G Holroyde
Mr P Weiss
Mrs P A Woodfine

Working Party on the Adaptation of Learning Spaces

Chairman to be appointed

Proposed members:

Mr J Foster
Mr M Carter
Mr G Griffin
Mr G Marchant
Mr B Sheppard
Mr B Wilkins

*Member of Council

Communications Study Group

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Mr M Edmundson, HMI
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Mr F H P Lewer
Mr R C Maclean
*Mr J S Meldrum

Continuing Mathematics Project Steering Group

Professor Sir Roy Allen *(Chairman)*
Mr R A Becher
Mr P Coaker
Group Captain G Fithen
Mr J Foster
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Mr R E Lygo, HMI
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*Miss G P Watts
Mr J R C Yglesias

*Member of Council

APPENDIX A

EVIDENCE SUBMITTED TO THE ANNAN COMMITTEE ON THE FUTURE OF BROADCASTING

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In preparing this evidence the Council benefited greatly from the work of its Communications Study Group. The Group consisted of Mr B R Webster (Chairman), Mr J H Embling, Mr M Edmundson HMI, Mr F H P Lewer, Mr R C Maclean and Mr J S Meldrum.

1 INTRODUCTION

1.1 The Council for Educational Technology was established by the Government in 1973 and has continued and developed the work of the former National Council for Educational Technology (1967–73). It is an autonomous body deriving most of its finance from Government departments. Its members are appointed by the Secretary of State for Education and Science, the Secretary of State for Scotland, or the Secretary of State for Northern Ireland; the greater number on the recommendation of organisations, associations and authorities concerned with education or occupational and vocational training.

1.2 The Council is the central organisation for promoting the development and application of educational technology in all sectors of education and training throughout the United Kingdom. It sets out to advise on co-ordinating and facilitating the work of organisations providing specialist or regional services in educational technology; to collect and disseminate information and advice; to identify the requirements of various sectors in education and training for services and materials in educational technology and to arrange for the satisfaction of these requirements. The part communications including broadcasting can play in education and training is therefore of direct concern to the Council.

1.3 This evidence outlines the Council's proposals for the future organisation of educational broadcasting. In preparing the submission the Council has benefited from consultation with numerous bodies culminating in a Consultative Conference held by the Council and attended by delegates from more than 30 organisations.

1.4 To avoid repetition, we have used the terms –

Education to include training for employment

Teacher to include tutor, lecturer and instructor

Student to include pupil and trainee

Institution to include school, college, university, polytechnic, industrial training establishment, teachers' centre and resources centre.

2 EDUCATIONAL BROADCASTING AND ITS VALUE TO EDUCATION

2.1 As a Council, we bring together a wide range of educational experience in the particular context of the use of new methods in education. It is our view that educational broadcasting in Britain is of outstanding quality. It has been, for fifty years past, a pioneering service; it offers teachers and students at all levels opportunities they could never have otherwise; it is a powerful way of spreading new ideas about teaching; and it is one of the cheapest and easiest ways of distributing educational material. Moreover, the broadcasters have sought, in a variety of ways, to find out what the user wants and to provide it. This process has been less than fully effective, but not for want of trying; rather it is a result of the decentralised and diffuse nature of the British educational system and the limitations imposed on the broadcasters by the Charter and the Act.

2.2 We also believe that the continuation of educational broadcasting as an integral part of the activity of the broadcasting authorities benefits broadcasting as a whole both by extending the range of programmes available and by offering an alternative set of standards against which programmes are judged.

2.3 In the following sections we identify changes, both technical and educational, which will influence the future development of educational broadcasting, and suggest how the best results for both education and broadcasting might be achieved.

3 THE CHANGING SITUATION

3.1 In recent years developments have taken place which make it urgently necessary to re-examine the basis and structure of educational broadcasting against the changing pattern of society in general and education in particular. The need to understand and cope with an increasingly complex society and to adapt to rapid changes in employment and leisure prospects has already produced many new developments in the education world and will cause increasing demands on the providers of education in the future.

3.2 There is a trend towards more variety in curriculum content to suit the particular needs of groups, classes or individuals. This accentuates the difficulty of relating educational broadcasting to the curriculum.

3.3 The traditional approach to education of 'chalk and talk' has changed radically and new methods demand access to a wide range of materials in all media. Furthermore the more widespread adoption of individual and small-group learning often creates a need for modular materials capable of being used in a variety of ways rather than for complete presentations.

3.4 Changes in social pressures have led to an expansion of the areas of educational activity. There is now greater emphasis on pre-school (for both children and their parents), preparation for retirement,

in-service training (especially the in-service training of teachers), re-training for industry, commerce, and the professions, and 'life-long education'.

3.5 The growth of distant learning systems epitomised by the Open University, in operating a system based on a range of resources of which broadcasting is one, prompted the Russell Committee in its report to suggest that similar forms of provision at below degree level and in non-academic fields would benefit from being served by analogues of the Open University.

3.6 The introduction of other methods of disseminating educational programmes, such as the video cassette, prompts the question whether, in some cases, distribution in recorded form is not preferable to transmission using channels and air time which might be released for other purposes. It also allows the method of distribution to be recognised as a separate activity from that of production.

3.7 Audio and video tape recorders, which are becoming cheaper and simpler, enable broadcasts to be recorded and stored for repeated use. Associated time switches facilitate the automatic recording of programmes. The ability to record programmes overcomes two of the inherent drawbacks of educational broadcasting, namely the inability to pre-view and the problem of matching time-tables to transmission times. More than a third of secondary schools already have a video recorder and most universities and colleges have them.

3.8 The development of simpler and cheaper production equipment has enabled the production and distribution of materials which help to meet local interests and special needs and to supplement the broadcast provision. These materials include television

programmes for use on closed circuit systems. Most of these systems are confined to individual institutions but in some areas programmes are widely distributed by cable.

3.9 Many local productions are of sufficient quality and interest to be of wider use, as illustrated by the fact that the Council has recently catalogued over 2,500 items produced by over 200 institutions of higher education. Commerical publishers are also producing a range of educational material in the new media.

3.10 The introduction of local radio stations, making possible the involvement of teachers in the production of education programmes to meet local needs, has increased the acceptance of broadcasts as a learning aid and local radio is able to provide that minority and local element absent from national broadcasts.

3.11 The introduction of the fourth national and other TV channels and the development of cable networks and microwave broadcasting would open up new opportunities to develop educational broadcasting.

Super High Frequencies in the 2.5 GHz range can be used for broadcasting over restricted areas. Although used for educational purposes in the USA, where it is known as ITFS (Instructional Television Fixed Service), such use in this country is not permitted because there is no allocation of frequency space by the Secretary of State for Home Affairs.

3.12 The law of copyright is currently under review by the Whitford Committee. There are at present no statutory provisions which permit the recording of all broadcast programmes for educational use. The

broadcasting organisations have made arrangements allowing educational (but not other) broadcasts to be recorded but with restrictions which prohibit indefinite retention, multiple copying and distribution. Broadcasts which are not part of the Schools, Further Education, or Open University output are not covered by any arrangements. The Council in its evidence to the Whitford Committee has made recommendations which, if implemented, would stimulate the making of off-air recordings and enhance the value derived from them.

4 PROPOSALS

4.1 It is important that educational broadcasting and education move closer; it is also important that the programme producer retains his creative freedom, and no less important that there should be a positive educational influence on the broadcasters. The aim of our proposals is to combine opportunities for co-ordination and co-operative planning with genuine independence and choice.

4.2 We therefore recommend an organisational framework for educational broadcasting designed:

4.2.1 To ensure that broadcasting develops as part of a complex of resource provision and distribution rather than as a distinct activity and includes a proper inter-relationship of local, regional, and national interests.

4.2.2 To allow production and distribution to be more readily treated as separate activities, so that programmes originated by the broadcast organisations may be distributed by means other than broadcasting, and material produced by educational and commercial producers may be broadcast, in each case according to educational needs.

4.2.3 To ensure the effective impact of teachers, and those involved in adult and informal education, on the aims and content of programmes made by the broadcasting organisations.

4.2.4 To give education access on specified terms to transmission facilities including cable systems and microwave broadcasting.

4.2.5 To enable public and other funds to be used for the commissioning of materials from broadcasters, educational institutions, and commercial producers, and their distribution by broadcast, cable, cassette or such other means as may be appropriate by reason of efficiency or effectiveness.

4.2.6 To ensure that the expertise and creative talents within the broadcasting organisations continue to be available for educational purposes.

4.2.7 To relate the provision of educational broadcasting to the general output of the broadcasting organisations and to seek to increase the educational value of programmes which form part of the general provision by, for example, the provision of related materials.

4.3 To meet these needs seems to us to require the creation of a *national educational communications body* to co-ordinate programme making and programme distribution.

4.4 *Distribution*
This body will need right of access to the broadcasting networks, both national and local, and to other appropriate distribution systems. The first step would be to agree what hours on what channels are available to education. This should be negotiated between the distribution authorities (the

broadcasting organisations and those controlling other means of distribution) and the body. The second step would be the allocation of available hours to the educational programme needs in such a way as to be of maximum benefit to the user. This is a matter primarily of educational judgement and experience and should in our view be in the hands of the body. For example the allocation of any peak broadcasting hours available between Open University broadcasts and Adult and Further Education programmes should be made by an educational body such as we have proposed and not by bilateral negotiations between the Open University and the BBC.

4.5 *Production and Finance*
This body will co-ordinate the making of productions and programmes by the broadcasters and others. While the broadcasting organisations should continue to provide funds from their own budgets for educational programmes on the present scale, the body should have resources both for its own operation and for the commissioning of or contributory funding of programmes.

4.5.1 The variables are:

who plans the production – the broadcasters, commercial producers, educational institutions?

where and by whom are the productions made – in the studios of the broadcasters, commercial units, educational institutions?

and

where do the funds come from – broadcasting revenues, central government, commercial producers, the funds of education authorities and institutions?

4.5.2 Every combination of these variables should be possible – as examples, a collaboration of

broadcasters and a group of higher education institutions, to make a series of programmes, partly in the broadcasters' studios, partly in the institutions, with joint funding by the broadcasters, the institutions, and the body, *or* an organisation (whether broadcasting or educational) might be making one series of programmes entirely out of its own funds on the basis of its own evaluation of need, and another series with the approval of the body and partially or wholly funded by them.

4.5.3 The new organisation we propose will not immediately and unquestionably make better judgements than those who have made their careers in educational broadcasting or than the devoted and experienced members of the present advisory structures. But as it gains experience, as it stimulates and is influenced by regional and local activities, as the involvement of teachers at all levels in curriculum activity deepens and clarifies their understanding of the function and use of all sorts of educational material, this organisation, in our view, can serve the aims we have set out above.

4.6 *Channel Space*

4.6.1 Since we are concerned to maintain the interrelation of educational and general service broadcasting, we do not favour an exclusive educational channel, but would like to see some educational programmes on every channel, including a proportion in peak hours.

4.6.2 As new distributive facilities become available, the allocation for educational use should be no less a proportion than on the existing broadcasting channels. This applies to the fourth television channel, the additional radio and television channels which could result from the re-engineering of the

present VHF television channels, and other facilities such as cable networks.

4.6.3 New facilities, particularly the re-use of the VHF channels, offer an opportunity for increasing local and regional broadcasting. We think that the stimulation of local and regional activity in this way is of the utmost importance in developing a greater sense of involvement in, and understanding of, newer communication methods among teachers and students.

4.6.4 Frequencies in the 2.5 GHz range should be allocated for educational broadcasting services covering limited areas and licences granted to operate such services.

5 SUMMARY

5.1 Educational broadcasting in Britain is of outstanding quality and has contributed much to education at all levels despite a number of inherent limitations resulting from the current organisational structures of both broadcasting and education. (Paragraph 2.1)

5.2 Changes in educational priorities and methods coupled with technological developments have produced a new and changing background against which educational broadcasting must now be seen. (Paragraphs 3.1–3.12)

5.3 We recommend an organisational framework for educational broadcasting which would combine increased opportunities for co-operative planning with independence and choice, particularly by the separation of production and distribution. It would facilitate a greater impact by teachers and users on what is produced. Broadcasting organisations should be permitted to make educational programmes

which are not distributed by broadcasting. Equally they should be permitted to broadcast educational material which they have not originated. (Paragraphs 4.1–4.2)

5.4 The Council believes there is a need to create a national educational communications body to co-ordinate production and distribution.

It would:

(i) have rights of access to distribution facilities;

(ii) allocate available distribution facilities to meet educational programme needs;

(iii) co-ordinate production of materials by broadcasters, commercial producers, and educational institutions;

(iv) have funds with which to contribute to or commission educational productions.

(Paragraphs 4.2, 4.4, 4.5)

5.5 We do not favour an exclusive educational channel but would like to see educational programmes on every channel with the allocation of time being no less a proportion than on existing channels and including a proportion of peak hours. (Paragraphs 4.6.1 and 4.6.2)

5.6 We would like to see the VHF channels used to provide more regional and local broadcasting. (Paragraph 4.6.3)

5.7 We would like to see a microwave band freed for educational broadcasting. (Paragraph 4.6.4)

5.8 Every effort should be made to permit the recording of general output broadcasts for educational use and generally to secure agreements with rights owners which facilitate wider educational use of broadcasts. The Copyright Law should be amended

as proposed in the Council's evidence to the Whitford Committee. (Paragraph 3.12)

The Council would expect to play a major part in working out the detailed implementation of its proposals.

APPENDIX B

EVIDENCE SUBMITTED TO THE WARNOCK COMMITTEE OF INQUIRY INTO SPECIAL EDUCATION

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1 INTRODUCTION

1.1 The Council for Educational Technology adopts a broad interpretation of the term 'educational technology', seeing it as being concerned with the design of learning systems, which draw upon all the available methods, resources and communications media, and their integration with established teaching techniques in the most effective manner, to achieve stated ends.

1.2 The Council is, therefore, concerned less with *what* is taught than with *how* it is taught, and with matching the relevance of the teaching method to the learning ability of the student. For this reason, our evidence is restricted to the sections a(iv) and (v) of the format suggested in the Warnock Committee's information paper EH (74) EVI.

1.3 Educational technology brings demonstrable benefits to all levels of education and training and has proved particularly effective when applied in individual learning situations. But the work of many schools (to list them would be tedious but references can be given) has demonstrated that it is especially in the field of special education that the approach can claim major successes. In the light of the evidence which follows, the Council urges the Committee of Inquiry to recommend the wider use of educational technology throughout all categories of special education.

2 CURRICULUM AND TEACHING METHODS

2.1 It is our belief that, whether in a special school or in a special class, or in a situation in which the handicapped student is a member of a class in a normal school, individual instruction is particularly important.

2.1.1 It enables the student to join a teaching/learning programme at a level consistent with his attainment and to proceed at a pace determined by his ability and by his own capability of success.

2.1.2 It demands the careful selection of tasks and precise planning of objectives leading to suitably graded steps, so that progress or difficulty is clearly indicated.

2.1.3 It ensures the constant evaluation of the effectiveness of the teaching/learning materials and could provide essential data upon which decisions about further steps in educational development could be based.

2.2 The careful task analysis and definition of precise learning objectives demanded during the preparation of a programmed curriculum leads to the breaking down of complex tasks into simple steps. A carefully graded approach to the mastery of these components can lead to considerable improvements in skill attainment by students with a wide variety of handicaps, without damage to personal and social development. Indeed, the effects of success in the acquisition of skills through this process can contribute to improved personal development. Especially in relation to those with a mental handicap, the behavioural disciplines which can be built into a programmed curriculum, particularly within a protective environment, can be a secure way of preparing students for the complexities of life within the community.

2.3 The preparation of such learning programmes can and should be carried out by teachers in direct contact with the handicapped pupil (see below para. 4.1), and could have the benefit of aiding the integration of handicapped students into normal

classes without undue stress. When all members of a class are following their own individualised learning programme, starting at varying points and finishing at varying times, a handicapped child working in the same individualised situation need neither interfere with others in the class nor be hindered by them. He works, under the teacher's guidance, with equipment and learning materials which convey no expectations of success or failure, and therefore no cause of anxiety, and enable the security of contact on a one-to-one basis with the class teacher to be further developed.

3 AIDS

3.1 The use of modern communications methods enables:

3.1.1 a variety of channels of communication to be employed, especially with students with sensory handicaps. For example, the complementary use of amplified sound, with the overhead projector and modified oscilloscopes for visualisation of speech patterns, has proved very effective with deaf children.

3.1.2 varied, yet controlled experience to be brought into a secure environment in a manner suitable to the intellectual and emotional capacity of the learner. A number of special schools have encouraged children to use sound recorders, cameras and cine cameras as a means of interpreting the outside world in their own terms.

3.1.3 a high success rate to be achieved through the presentation of carefully structured materials through machines which are capable of limitless and tireless repetition. These machines are completely neutral, so the student does not fear signs of dissatisfaction nor of comparison with his fellows.

3.2 The development and use of highly specialised teaching equipment is already widely accepted as making a positive contribution to the education of those with particular sensory or physical handicaps. Audio amplifiers, speech trainers, talking books, electric typewriters for spastics, and other specialised equipment for those with severe motor handicaps are used as widely as funds permit. However, much can also be achieved by more generous provision of standard teaching aids, which are of much lower unit cost. Simple cassette tape players, audio card and sheet readers (*eg* Language Master and Audio Page), photographic slide viewers and projectors are used successfully with and by children with many different types of handicap, enabling them to work on their own and at their own pace (see 2.3 above). By lightening the load of repetitive work for the teacher, the more widespread use of this type of equipment provides more opportunity for that meaningful dialogue between teacher and pupil on a one-to-one basis which is so vital to concept formation.

4 SUPPLY AND TRAINING OF TEACHERS AND OTHER STAFF

4.1 Teachers involved in special education need training in the use of educational technology, both pre-service and in-service, even more than teachers in other sectors of education. A proper understanding of the systematic approach to course design is essential to the preparation of carefully planned learning sequences, suited to the abilities of the individual student, and, in most cases, it is best that this course design is carried out by the team of teachers most aware of the students' problems and capabilities. In addition, it is essential that teachers in special education have a clear understanding of the potential of modern teaching equipment, and of

the contribution it can make to the organisation of class time, in order that the teacher can have more time available for contact with individual children, while all are working within their own intellectual capacity. Whilst there are probably adequate facilities available for courses of the required type on a local basis (the Council is already investigating the general problem of training for educational technology), there will need to be a particular effort to ensure that teachers in special education are given opportunities to attend such courses.

4.2 It is, however, essential to the proper use of educational technology in special education that teachers are adequately supported by specialist non-teaching staff. There is little point in arranging an increased provision of equipment for individual learning purposes, unless some technical assistance is provided to the school concerned. In addition, the preparation of structured programmes (see para. 2.3 above) by teachers is acknowledged to be a time-consuming operation, and can be eased considerably by the provision of specialists (*cf* the provision of media resource officers within ILEA) able to help in the creation and adaptation of learning materials. The Committee is earnestly asked to consider, when thinking of the provision of support staff such as child care specialists, the value which can be obtained through the employment in addition of properly trained technical and media production staff.

5 DISTANT LEARNING WITH NON-TEACHING STAFF

5.1 As a corollary of the above, the Committee might note that the preparation of carefully structured learning programmes for clearly defined audiences within special education would provide materials which

could be used for 'distant learning' in the home or in hospital. It is quite possible for the control and administration of materials of this kind to be carried out by a well-motivated parent, by suitable hospital staff, or by volunteer helpers.

6 CONCLUSION

6.1 The Council for Educational Technology believes that the use of modern communications media and machines, allied to systematic course construction and individualised instruction, can make a major contribution to improving the education of all categories of handicapped children, and that financial provision should be made for developments along these lines. Skilled teachers of handicapped children are an expensive and scarce resource; they should be helped, by the use of educational technology, to use their time to the best advantage. The Council would welcome an invitation to assist in promoting such developments.